

**IN THE CLAIMS:**

*Please amend claims 1-18 as provided below.*

1. (currently amended) A device (1) for calculating feedback signaling message (FSM) bits (FSM(s)) by means of which the signals sent from two antennas of a base station are influenced with reference to their phase difference and/or their amplitudes with the aid of two estimated channel impulse responses ( $h_{1,n}(s)$ ,  $h_{2,n}(s)$ ),

[-]] wherein the device (1) being present is in hard-wired form, and wherein the device

[-]] is configured to generate a complex phasor (H21) being formed from components ( $h_{1,n}(s)$ ,  $h_{2,n}(s)$ ) of the two channel impulse responses, and further configured to produce

[-]] an FSM bit (FSM(s)) being produced by means of by a rotation and projection of the phasor (H21) and, in particular, of and a comparison of the rotated and projected phasor with a threshold value-value decision.

2. (currently amended) The device (1) as claimed in claim 1, characterized in that wherein the components ( $h_{1,n}(s)$ ,  $h_{2,n}(s)$ ) of the two channel impulse responses can be are applied at inputs (In1, ..., In4) of the device (1), and wherein

in that control signals (C1,k(s), ..., C6,k(s)) can be are applied at control inputs (Config1, ..., Config6) of the device (1), and wherein

in that the FSM bit (FSM(s)) can be tapped is provided at an output of the device (1), the FSM bit (FSM(s)) being calculated as a function of the components ( $h_{1,n}(s)$ ,  $h_{2,n}(s)$ ) of the two channel impulse responses and the control signals (C1,k(s), ..., C6,k(s)).

3. (currently amended) The device (1) as claimed in claim 2, characterized by

— by wherein the device comprises a logic unit (2, 3) configured to receive and selectively arrange the two channel impulse responses, and a processing unit (4, ..., 9) connected downstream of the logic unit configured to process the two channel impulse responses based on the selective arrangement thereof (2, 3).

4. (currently amended) The device (1) as claimed in claim 4-3, characterized in that wherein the components ( $h_{1,n}(s)$ ,  $h_{2,n}(s)$ ) of the two channel impulse responses are present at inputs ( $In_1, In_2, In_3, In_4$ ) of the logic unit (2, 3), wherein

— in that the logic unit (2, 3) has outputs ( $Out_1, Out_2, Out_5, Out_6$ ) whose number is equal to the number of its inputs ( $In_1, In_2, In_3, In_4$ ), and wherein

— in that the inputs ( $In_1, In_2, In_3, In_4$ ) of the logic unit (2, 3) can be connected to the outputs ( $Out_1, Out_2, Out_5, Out_6$ ) of the logic unit (2, 3) as a function of at least one of the control signals ( $C_{1,k}(s), \dots, C_{5,k}(s)$ ).

5. (currently amended) The device (1) as claimed in claim 3-~~or~~4, characterized

— in that wherein the processing unit comprises a multiplier stage (4, 5), an adder (6), a weighting stage (7), an accumulator (8) and a threshold value decision unit (9) are connected in series in the prescribed sequence in the processing unit (4, ..., 9).

6. (currently amended) The device (1) as claimed in claim 5, characterized in that wherein the multiplier stage has two multipliers (4, 5) whose inputs are connected in each case to two outputs ( $Out_1, Out_2, Out_5, Out_6$ ) of the logic unit (2, 3), and wherein

\_\_\_\_\_ in that the inputs of the adder (6) are connected to the outputs of the multipliers (4, 5).

7. (currently amended) The device (1) as claimed in claim[[s]] 5 and 6, characterized

\_\_\_\_\_ in that further comprising a control signal ( $C_{6,k(s)}$ ) is present at coupled as an input to the weighting stage (7), and

\_\_\_\_\_ in that wherein the weighting stage (7) applies is configured to apply a weighting factor to the a sum ( $S_k$ ) formed by the adder (6), doing so as a function of the control signal coupled thereto( $C_{6,k(s)}$ ) present at it.

8. (currently amended) The device (1) as claimed in ~~one or more of~~ claim[[s]] 2-to-7, characterized

\_\_\_\_\_ in that wherein the control signals are stored in the form of control bits ( $C_{1,k(s)}, \dots, C_{6,k(s)}$ ) in a read-only memory.

9. (currently amended) The device (1) as claimed in ~~one or more of the preceding claims~~, characterized

\_\_\_\_\_ in that claim 1, wherein the device (1) is designed for the UMTS standard.

10. (currently amended) The device (1) as claimed in claim 9, characterized

\_\_\_\_\_ in that wherein the control signals ( $C_{1,k(s)}, \dots, C_{6,k(s)}$ ) are a function of the slot number ( $s$ ) of the FSM bit ( $FSM(s)$ ) to be calculated, and of the a CLTD mode.

11. (currently amended) The device (1) as claimed in claim 9 or 10, characterized

\_\_\_\_\_ in that wherein the control signals ( $C_{1,k(s)}, \dots, C_{6,k(s)}$ ) are a function of whether the slot number ( $s$ ) of the FSM bit ( $FSM(s)$ ) to be calculated is an even or odd number.

12. (currently amended) A mobile radio terminal having a device (1) as claimed in ~~one or more of the preceding claim[[s]]~~ 1.

13. (currently amended) A method for calculating FSM bits ( $\text{FSM}(s)$ ) by means of which the signals sent from two antennas of a base station are influenced with reference to their phase difference and/or their amplitudes with the aid of two estimated channel impulse responses ( $h_{1,n}(s), h_{2,n}(s)$ ), ~~having the following steps comprising:~~

- (a) producing a complex phasor ( $H_{21}$ ) from components ( $h_{1,n}(s), h_{2,n}(s)$ ) of the two channel impulse responses; and
- (b) calculating an FSM bit ( $\text{FSM}(s)$ ) by rotation and projection of the phasor ( $H_{21}$ ).

14. (currently amended) The method as claimed in claim 13, characterized ~~in that wherein~~ the rotation and projection of the phasor ( $H_{21}$ ) is determined by control signals ( $C_{1,k}(s), \dots, C_{6,k}(s)$ ).

15. (currently amended) The method as claimed in claim 13 or 14, characterized ~~in that wherein calculating the FSM bit comprises performing a threshold value decision is carried out comparison after the rotation and projection of the phasor ( $H_{21}$ ) in order to calculate the FSM bit ( $\text{FSM}(s)$ ).~~

16. (currently amended) The method as claimed in ~~one or more of claims 13 to 15~~, characterized ~~in that claim 14, wherein the method is designed for the UMTS standard.~~

17. (currently amended) The method as claimed in claims 14 and 16,  
characterized  
\_\_\_\_\_ in that wherein the control signals ( $C_{1,k}(s), \dots, C_{6,k}(s)$ ) are a function of  
the slot number ( $s$ ) of the FSM bit ( $FSM(s)$ ) to be calculated, and of the a CLTD mode.

18. (currently amended) The method as claimed in claim 17, characterized  
\_\_\_\_\_ in that wherein the control signals ( $C_{1,k}(s), \dots, C_{6,k}(s)$ ) are a function of  
whether the slot number ( $s$ ) of the FSM bit ( $FSM(s)$ ) to be calculated is an even or odd  
number.